

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-005688**Date Inspected:** 05-Mar-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China**CWI Name:** Shen Fuyou/Yu Dong Ping**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG segments and suspension brackets**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG assembly bay 14

This QA observed ZPMC personnel flame straightening deck panel identified as DP615-001. ZPMC QC did not appear to be monitoring the straightening process as specified in AWS D1.5 2002 and the contractors WQCP. The flame straightening procedure being used did not appear to be approved by the engineer as specified in AWS D1.5 2002 section 3.7.3. This QA contacted ZPMC QA identified as Mr. Wang Lu (Testino) concerning this issue. QA informed Mr. Wang that the procedure was not written in English so this QA could review the procedure. Mr. Wang informed this QA that an English version was not available for review. This QA noted that the procedure did not have Caltrans approved stamp. An incident report will be forthcoming concerning this issue.

This QA observed ZPMC qualified welding personnel identified as Mr. Xia Jun (068253) perform SMAW Critical Weld Repair (CWR) welding on weld joint identified as DP545-002-015. ZPMC QC CWI identified as Mr. Li Jie was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with the contractors approved CWR report #B-CWR0377 and WPS-345-SMAW-2G-(1F)-repair.

This QA observed ZPMC qualified welding personnel identified as Mr. Li Jun (051348) perform FCAW Critical Weld Repair (CWR) welding on weld joint identified as DP585-002-015. ZPMC QC CWI identified as Mr.

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Zhang Xian Ming was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with the contractors approved CWR report #B-CWR0339 and WPS-345-FCAW-2G-(1F)-repair-1.

This QA observed ZPMC QC identified as Mr. Zhao Shuang Bao perform hardness testing of the Heat Affected Zone (HAZ) at two locations on weld joint identified as DP540-001-011 and two locations on weld joint identified as DP540-001-009. Hardness tests were ordered by the engineer due to the fact that these welds are being repaired for a sixth time. Mr. Zhao performed the test adjacent to the excavated areas where the repairs will be made. See attached photos. Mr. Zhao prepared a hardness test report and submitted it to Structural Material Representative (SMR) identified as Mr. Eric Tsang for review.

OBG assembly bay 19

This QA observed ZPMC qualified welding personnel identified as Mr. Fei Xiang (062751) and Mr. Yu Binge (062737) perform FCAW welding on suspension bracket identified as SB007-036. ZPMC QC CWI identified as Mr. Lu Li Qing was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2132-3.

This QA observed ZPMC qualified welding personnel identified as Mr. Wang Yong (062807) perform FCAW root welding on weld joint identified as BK006A-001-009. ZPMC QC CWI identified as Mr. Lu Li Qing was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2231-U2-F.

This QA observed ZPMC qualified welding personnel identified as Mr. Xu Aihua (062618) perform SAW welding on weld joint identified as BK006A-001-009. ZPMC QC CWI identified as Mr. Lu Li Qing was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2221-B-L2c-S-2.

This QA noted that ZPMC appears to have started fabricating components for the bike path in this bay.

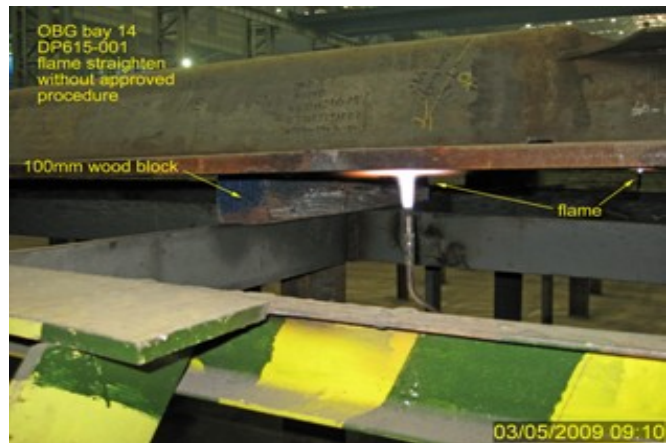
Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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## Summary of Conversations:

As mentioned above.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry (858)-344-2712, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hall,Steven	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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